REMARKS

Applicant respectfully requests further examination and reconsideration in view of the above amendments and the arguments set forth below. In the Final Office Action mailed April 7, 2006, claims 1-4, 6-29 and 31 have been rejected. In response, the Applicant has amended claims 1, 6 and 25, and submitted the following remarks. Accordingly, claims 1-4, 6 - 29 and 31 are still pending. Favorable reconsideration is respectfully requested in view of the amended claim and the remarks below.

Rejections Under 35 U.S.C. §112

Claims 1-4, -29 and 31 have been rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Within the Office Action it is stated that the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled relevant art that the inventors, at the time of that the application was filed, have possession of the claimed invention. Specifically, within the Office Action it is stated that the independent claims recite the limitation "the separate interpretation" that appears to constitute new matter. The Applicant respectfully disagrees with this rejection.

The previous amendment to the independent claims 1, 10 and 25 to include the limitation "the separate interpretation" makes the distinction between a previously interpreted set of data and the interpretation of the currently gathered physiological data by the interpretation module 58. In other words, the Applicant submits that, in the present invention, there is previously, expertly interpreted data records that are stored and made available to compare with the presently gathered physiological data, that is to be interpreted from comparison. This distinction is well supported in the specification in the following sections.

On page 2, lines 20-24, the present application teaches "....the user may compare the present data to previous, expertly interpreted data records. This comparison acts as an aid in interpreting the data." In this passage a set of previous, expertly interpreted data is utilized to compare with a set of present data in order to aid "separate" interpretation of the present data.

On page 3, lines 3-10, "the method includes establishing a library of interpreted physiological data records, gathering the physiological data from a patient or subject, "separately" interpreting the physiological data based on a predetermined set of criteria to generate a "separate" interpretation." Once again, the present application teaches establishing a library of interpreted physiological data records and interpreting the present physiological data to generate a separate interpretation.

Furthermore, on page 5, lines 19-29, "these features can then be compared to the features of previously interpreted physiological data and used to check the "separate" interpretation made by the interpretation module 58." Therefore, it is clear from the specification that the amendments made to claims 1, 10 and 25 to include a separate interpretation is well supported. For at least these reasons, the independent claims 1, 10 and 25 are all allowable under 35 U.S.C. §112, first paragraph. Furthermore, claims 2-4, 6-9, 11-24, 26-29 and 31 are allowable as being dependent upon allowable base claims.

Claims 1-4, 6-29 and 31 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particular point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, within the Office Action it is stated that it is unclear what "separate interpretation" actually is. The Applicant respectfully submits that the discussion above regarding the first paragraph rejection adequately describes the distinction the Applicant makes between previously interpreted data and the separate interpretation of the currently gathered physiological data by the interpretation module 58. For at least these reasons, the independent claims 1, 10 and 25 are allowable over 35 U.S.C. §112, second paragraph.

Furthermore, the Applicant has amended claim 1 and claim 6 to remedy the antecedent basis issues. Lastly, claims 2-4, 7-9, 11-24, 26-29 and 31 are allowable as being dependent upon the independent claims 1, 10 and 25.

Rejections Under 35 U.S.C. §103

Within the Office Action, claims 1-4, 6, 8-12, 14-17, 19-21, 23-29 and 31 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,011,991 to Mardirossian (hereinafter Mardirossian) in view of U.S. Patent No. 6,230,048 to Selvester et al (hereinafter Selvester) and U.S. Patent No. 5,003,490 to Castelaz et al (hereinafter Castelaz). The Applicant respectfully disagrees with this rejection.

Once again, in contrast to the teachings of Mardirossian, Selvester, Castelaz and their combination, the method and system of the present invention interprets and correlates by measuring the collected physiological data, analyzing numerous characteristics such as wave form height, distance between peaks, and extracting various features of the wave form. The interpretation module then uses the measured features to generate a separate interpretation of the physiological data [present invention, page 5, lines 19-28]. The present invention does not merely create a wave form, but rather extracts features of the waveform to be compared with features of **previously interpreted** physiological data.

Mardirossian teaches a system and method for enabling human beings to communicate by way of their monitored brain activity. As is recognized in the Office Action, Mardirossian fails to explicitly recite the step of displaying the interpretation in the correlated physiological records on a display. Furthermore, Mardirossian does not teach utilizing an interpretation module **to generate a separate interpretation** of the physiological data collected from the patient.

Selvester teaches a computer-based electrocardio interpretation system and method wherein subject specific ECG data is interpreted in accordance with a set of interpretation rules to identify the presence, and certain characteristics, of various selected heart conditions. Selvester also does not teach utilizing an interpretation module **to generate a separate interpretation** of the physiological data collected from the patient.

Castelaz teaches a neural network signal process that can accept, as input, unprocessed signals, such as those directly from a sensor. While Castelaz performs a number of operations on a signal, such as measurement of the pulse width, the amplitude, rise and fall time, frequency, etc., Castelaz does not teach utilizing an interpretation module **to generate a**

separate interpretation of the physiological data. In other words, none of the cited references teach interpreting the collected physiological data and generating a separate interpretation, as is claimed and described in the present invention [specification of present invention, page 5, lines 19-28].

The amended independent claim 1 is a method of providing real time decision support in the review of physiological data comprising establishing a library of interpreted physiological data records, gathering of physiological data, interpreting the physiological data based on a predetermined set of criteria such that a separate interpretation is generated, wherein the interpreting step includes measuring the physiological data, analyzing a set of characteristics associated with the physiological data, extracting one or more patterns from the physiological data to generate the separate interpretation and comparing the separate interpretation from the physiological data to a set of known patterns, correlating the separate interpretation to one or more of the physiological data records in the library of physiological data records and displaying the separate interpretation in the correlated physiological data records on a display. As discussed above, neither Mardirossian, Selvester, Castelaz nor their combination teach interpreting the physiological data based on a predetermined set of criteria to generate a separate interpretation. For at least these reasons, claim 1 is allowable over the teachings of Mardirossian, Selvester and their combination.

Claims 2-4, 6, 8 and 9 are all dependent upon the independent claim 1. As discussed above, the independent claim 1 is allowable over the teachings of Mardirossian, Selvester, Castelaz and their combination. Accordingly, the dependent claims 2-6, 8 and 9 are all also allowable as being dependent upon an allowable base claim. Claim 6 has also been amended to remedy the antecedent basis issue.

The amended independent claim 10 is directed to a physiological data interpretation system comprising a library of physiological data records, a physiological data acquisition device capable of acquiring physiological data and coupled to the library of physiological data records, the acquisition device having an interpretation module to generate a separate interpretation of the physiological data and a correlation module to compare the separate interpretation to the records in the library of physiological records and determine a set of

correlated data records, wherein the interpreting step includes measuring the physiological data, analyzing a set of characteristics associated with the physiological data, extracting one or more patterns from the physiological data to generate the separate interpretation, and comparing the extracted patterns from the physiological data to a set of known patterns and an output device coupled to the acquisition device that displays the interpretation and the correlated physiological data records. As discussed above, neither Mardirossian, Selvester, Castelaz nor their combination teach a separate interpretation module to generate an interpretation of the physiological data. For at least these reasons, the independent claim 10 is allowable over the teachings of Mardirossian, Selvester, Castelaz and their combination.

Claims 11, 12, 14-17, 19-21, 23 and 24 are dependent upon the independent claim 10. As discussed above, the independent claim 10 is allowable over the teachings of Mardirossian, Selvester, Castelaz and their combination. Accordingly, the dependent claims 11, 12, 14-17, 19-21, 23 and 24 are all also allowable as being dependent upon an allowable base claim.

The amended independent claim 25 is directed to a method of interpreting physiological data. The Applicant respectfully submits that the independent claim 25 is allowable for substantially the same reasons as the independent claim 1 is allowable as discussed above. Claims 26-29 and 31 are all dependent upon the independent claim 25. As discussed above, the independent claim 25 is allowable over the teachings of Mardirossian, Selvester, Castelaz and their combination. Accordingly, the dependent claims 26-29 and 31 are all allowable as being dependent upon an allowable base claim.

Within the Office Action, claim 7 has been rejected under 35 U.S.C. §103 as being unpatentable over Mardirossian in view of Selvester as applied to claim 1 above, and further in view of U.S. Patent No. 6,139,494 to Cairnes (hereinafter Cairnes). Claim 7 is dependent upon the independent claim 1. As discussed above, the independent claim 1 is allowable over the teachings of Mardirossian, Selvester, Castelaz and their combination. Accordingly, the independent claim 7 is allowable as being dependent upon an allowable base claim.

Within the Office Action, claim 18 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Mardirossian in view of Selvester as applied to claim 10 above, and

further in view of U.S. Patent No. 6,203,495 to Bardy (hereinafter Bardy). Claim 18 is dependent upon the independent claim 10. As discussed above, the independent claim 10 is allowable over the teachings of Mardirossian, Selvester, Castelaz and their combination. Accordingly, claim 18 is allowable as being dependent upon an allowable base claim.

Within the Office Action, claims 13 and 22 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Mardirossian in view of Selvester as applied to claims 10 and 12 above, and further in view of U.S. Patent No. 6,264,614 to Albert el al (hereinafter Albert). Claims 13 and 22 are dependent upon the independent claim 10. As discussed above, the independent claim 10 is allowable over the teachings of Mardirossian, Selvester, Castelaz and their combination. Accordingly, claims 13 and 22 are also allowable as being dependent upon an allowable base claim.

For the reasons given above, Applicant respectfully submits that the claims are now in condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at 414-271-7590 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,

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